

B.E / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2012

COMPUTER SCIENCE AND ENGINEERING

SEVENTH SEMESTER

CS 9034 – TCP/IP Design and Implementation

(REGULATIONS 2008)

26

Time: 3 hr

Max.Mark:100

Answer All QuestionsPart – A (10 X 2 = 20 Marks)

1. Which ICMP messages are used in PING command?
2. What is RARP? Specify its purpose.
3. Define Socket? Give the syntax for socket creation.
4. State the uses of Persist timer?
5. What is the use of Pseudo header?
6. Differentiate multicast and broadcast?
7. What is the purpose of Finite State Machines?
8. Define mutual exclusion?
9. Mention the name of the timers that is used in TCP congestion control?
10. Define flow control mechanism?

Part – B (5 X 16 =80)

11. a. i Explain in detail about ARP implementation and its relationship with other protocols? (10)
ii. Describe how packets are routed through IP Routing with suitable example. (6)
12. a. i. Elaborate the process of connection establishment and termination in TCP protocol? (8)
ii. With suitable example explain the process timeout and retransmission. (6)
(OR)
- b. i. Explain the process of interactive data flow with an example? (8)
ii. Discuss the features and performance of TCP implementation (8)
13. a. i. How fragmentation and reassembly of datagram is implemented in IP? Explain it. (8)
ii. Explain the structure of routing table in detail with an example (8)
(OR)
- b. i. Explain any one routing algorithm used in IP implementation (8)
ii. Describe the process of multicasting Processing in IGMP (8)

14. a. i. Discuss the transmission control blocks with an example (8)
- ii. Explain the process of Mutual exclusion in TCP implementation (8)

(OR)

- b. Explain the TCP finite state machine implementations with an example in detail (16)

15. a. How is congestion avoidance happens and is controlled in TCP/IP? Give its implementation details. (16)

(OR)

- b. i. Describe the Flow control and adaptive retransmission in TCP/IP implementation with an example? (16)